

# Beating the HEAT and Basic First Aid Pigeon Fever Update



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# Overview

- Tips for summer
- Basic first aid supplies
- Emergencies and when to call the vet
- What is pigeon fever?
  - Transmission
  - Clinical Signs
  - Diagnosis
  - Treatment Options



# Summer Heat – Signs of Stress

- Temps over 95 F increase risk
- High heart rate
- High respiratory rate
- High temperature
- Excessive sweating...or no sweating at all
- As it progresses signs become more severe
  - Uncoordinated gait
  - Collapse



# Tips for Keeping Horses Cool

- WATER!!
  - Plenty of cool, clean water free choice at all times
  - Requirements increase with increasing heat
- Salt blocks and electrolytes may encourage drinking
- CLIP!
  - Especially older horses or those with long coats



# Tips for Keeping Horses Cool

- Turn out during coolest hours if possible
  - Overnight and early am
- SHADE is critical
  - Run-ins are ideal
  - Large trees may be adequate
- Fans to move air – use caution with cords
- Open windows and doors
- Misting systems
  - Sprinklers



# Working in the Heat

- Reduce intensity/length of rides
  - Sponge to help with cooling
- Work in the cooler hours of the day
  - Early morning
  - Late evening
- Make sure walked out/cooled down
- Plenty of water!
- Cool bath post exercise



# Other thoughts/ideas?



<http://www.miniaturehorsetalk.com/index.php?showtopic=123928>

# Be Prepared – First Aid Supplies

- Thermometer
- Stethoscope
- Flashlight
- Phone numbers
- Latex gloves
- Wound dressing
- Shoe pullers and rasp
- Phenylbutazone (“Bute”)
- Cold pack
- Poultice
- Antiseptics (Nolvasan, Chlorahexidine, Betadine)
- Soap
- Scissors
- Eye wash
- Hoof pick and knife
- Bottles of sterile saline
- PVC pipe for splinting

# Bandage Materials

- Elastikon
- Vetwrap
- Gauze pads (4x4)
- Roll gauze or kling
- Sheet and roll cotton
- Standing wraps/quilts
- Duct tape



# Have a PLAN for Emergencies

- Be prepared
- Emergencies are emotional
- Have phone numbers of the vet, insurance information, shipper if necessary
- Financial plan



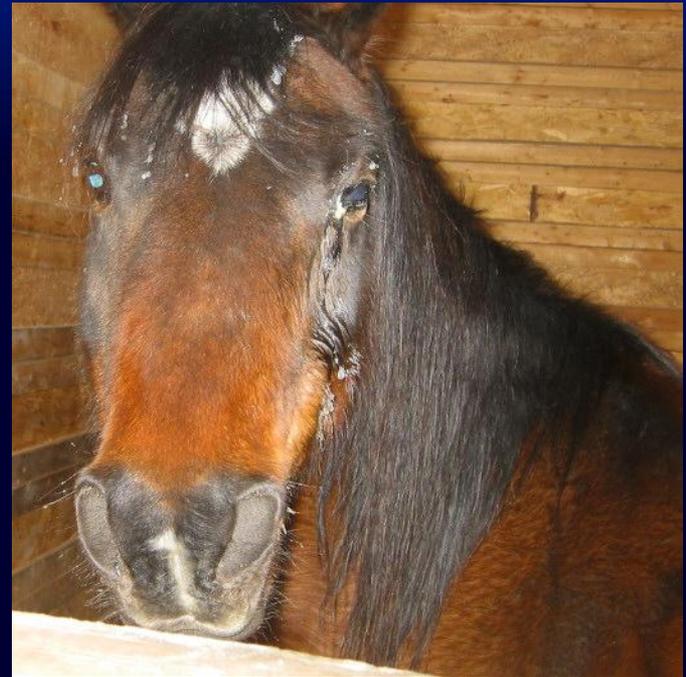
# Warning Signs - Subtle

- Anorexia
- Depressed
- Laying down longer than usual
- Off by themselves
- Fever (Temp > 101.5)
- Abnormal gum color (red, purple, white, or yellow)



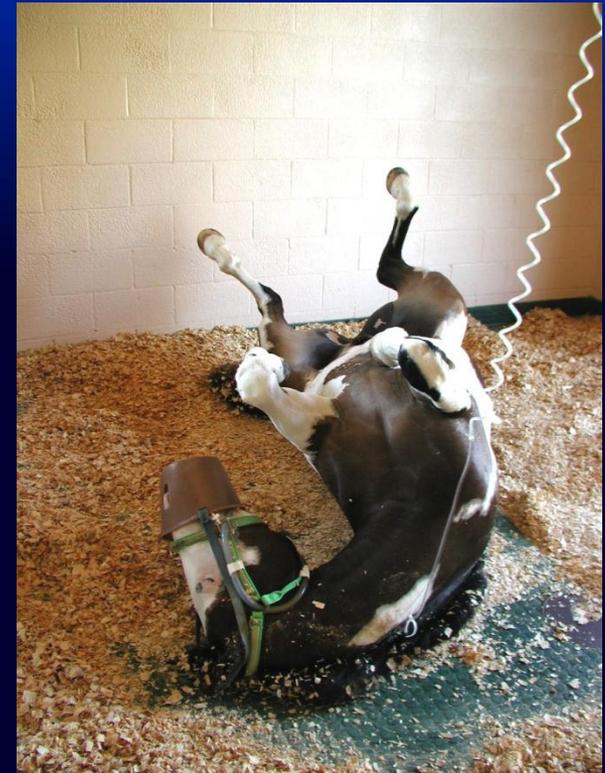
# Warning Signs – More Severe

- Squinting, swollen or tearing eye
- Yellow or green nasal discharge
- Sweating profusely
- Lameness



# Warning Signs – Most Severe

- Rolling, pawing, colic
- Unable to get up
- Unable to move
- Walking drunk (ataxia)
- Profuse bleeding
- Difficulty breathing (nostril flare, distressed, increased respiratory rate)



# Equine Emergencies

- To know when you have an emergency, it is important to understand what is normal and what is NOT normal for the horse
- Behavior, appetite, attitude, gait, and normal physical exam parameters

# Normal Adult Horse

- Temperature 99-101.5 F
- Heart rate 28-48 beats/minute
- Respiratory rate 12-24 breaths/minute
- Pink gums
- 6-10 piles of well formed manure per 24 hours



# Normal Neonate

- Temperature 99-102F
- HR 80-120
- RR 20-40
- Pink gums
- Nursing 4-6 times per hour
- Fecal output 2-4 piles per day, pasty



# Common Equine Emergencies

- Colic
- Neurological disease
- Wounds
- Lameness
- Eyes
- Fever
- Choke



# What You Can Do for COLIC

- Remove all feed, but not water
- Take the heart rate and look at the gums
- Call the vet
  - They may recommend giving Banamine
- Walk to prevent injury if down/rolling



# Do NOT

- Give more than 1 dose of Banamine without further examination
- Walk the horse to exhaustion
- Try to pass a tube or force feed mineral oil
- Insert a hose rectally to give an enema



# Remember with Colic

- Mild GI upsets and colics that require surgery may start out with very similar clinical signs
- Persistent pain is the #1 indicator for exploratory surgery

# Neurologic Emergencies

- Vary from head trauma from falls to viral disease like West Nile Virus /EEE/Herpes virus to EPM
- Require immediate veterinary care



# Superficial Wounds

- Clean with a disinfectant and water
- Clip the hair to inspect more closely
- Abrasions on limbs may benefit from wraps to decrease swelling



# Deep wounds/Lacerations

- May need to be sutured
- Ideally, sutures should be placed within 6-8 hours of the injury
- Clean the wound as much as you can and apply a light bandage
- Do not put any ointments onto a deep wound or laceration, complete evaluation

# ALWAYS

- Call the vet IMMEDIATELY if:
  - Bleeding is profuse, won't stop, and/or is bright red (apply pressure)
  - Injury is over a joint, tendon, or on the bottom of the foot
- Make sure the horse has a current tetanus toxoid booster (within 6 months)

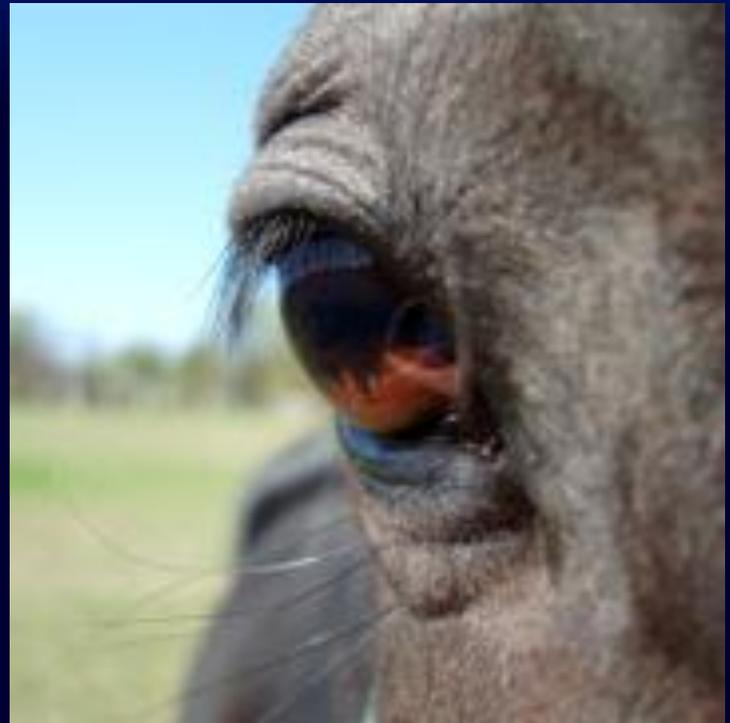
# Causes of non-weightbearing Lameness

- Foot abscess
- Fracture
- Septic joint or tendon sheath
- Laminitis (usually more than one limb affected)

Need thorough evaluation ASAP!

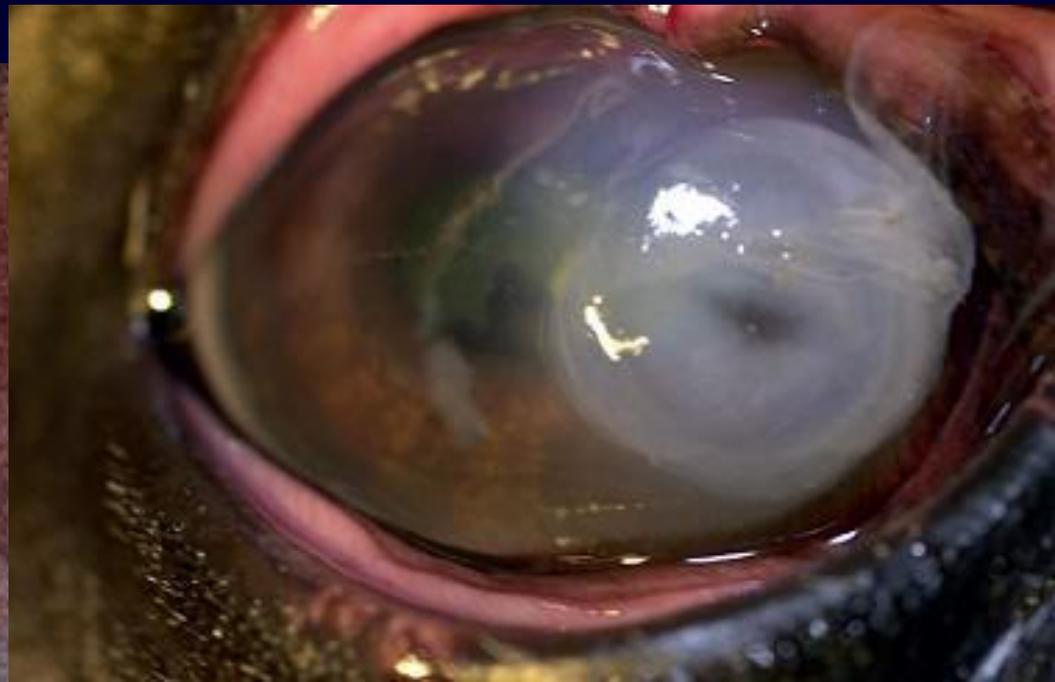
# Eyes

- Should be clear
- Normally no swelling, squinting, tearing, discharge



# Eyes

- ANY abnormalities with the eye require immediate attention
- Eye problems can deteriorate and go bad very rapidly





# Choke (Esophageal obstruction)

- Occurs when horses eat too fast and food becomes stuck in the esophagus
- Causes:
  - Bolting feed
  - Dental Disease
  - Neurologic conditions causing difficulty swallowing
  - Congenital or acquired esophageal problems

Choke can lead to.....





# So...if you suspect Choke

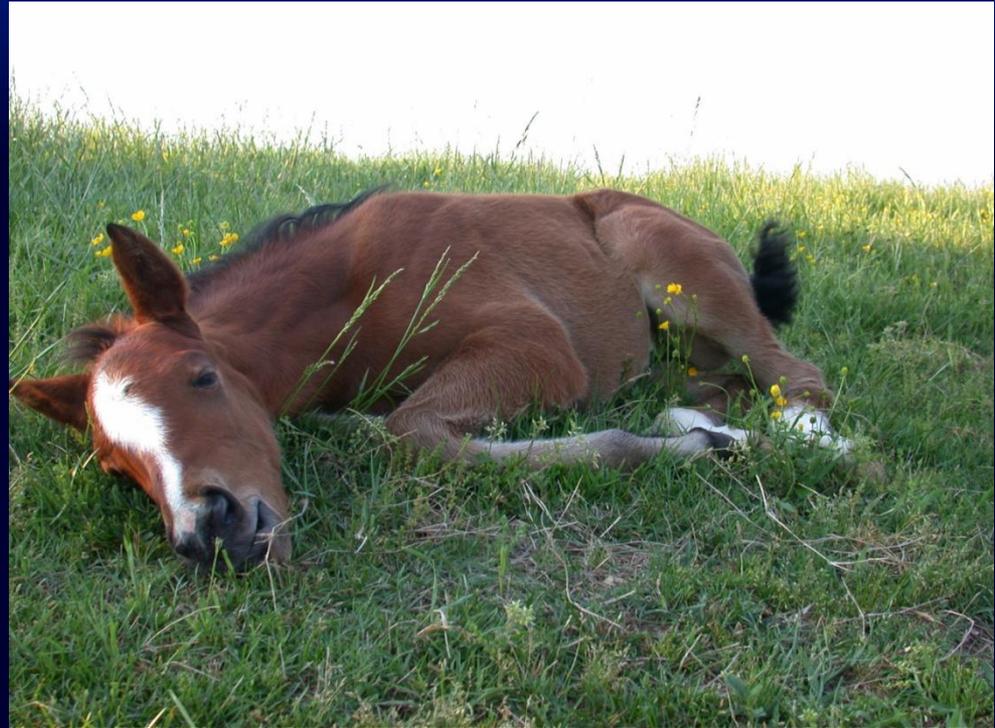
- Remove all feed and water – including pasture access!
- Call vet
- Monitor rectal temperature

Many will resolve on their own or with minimal treatment, but some require further therapy



# In Summary: For Emergencies

- Be prepared – First Aid Kit
- Have a plan
- Phone numbers available
- Stay calm
- Educate clients/ Utilize your veterinarian

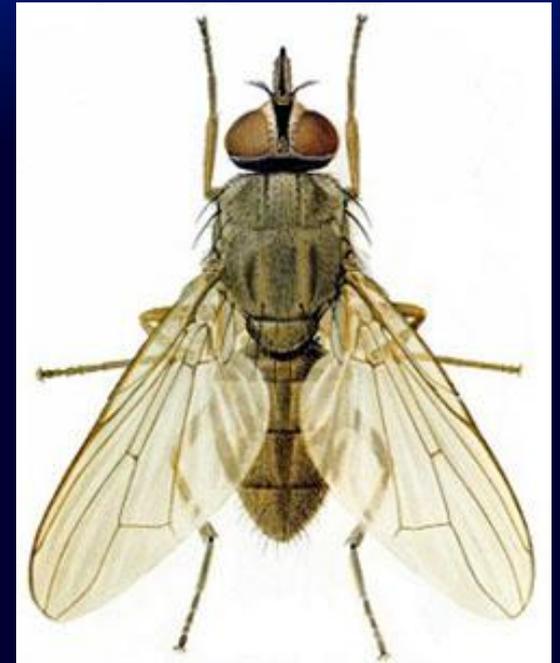


# What is Pigeon Fever?

- Infection with *Corynebacterium pseudotuberculosis*, which is a gram + bacterium
- Species specific biotypes
  - Small ruminant strains
  - Horses
  - Cattle – both
  - Natural cross species transmission not thought to commonly occur

# Transmission

- Soil organism that can survive for months to years even in direct sun
- Largest number of cases typically in dry months (fall and winter)
- Associated with biting insects and flies
- Contact with draining pus, fomites, vectors

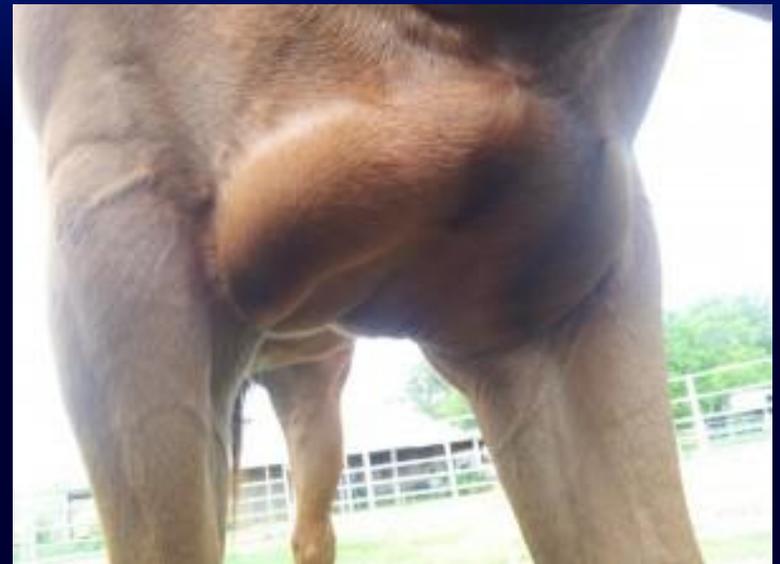


# Incubation Period

- Long and variable
- In small ruminants – can be 2 weeks to several months
- In horses – variable – from weeks to months
  - Not completely known
- Suspect organism enters through skin, mucous membrane abrasions, or wounds

# Clinical Signs in Horses

- 3 Forms
- External Abscesses
  - 90+% of cases
- Internal Abscesses
  - About 8% of cases
  - Commonly in liver
- Ulcerative lymphangitis
  - Severe cellulitis
  - 1% of cases



# Clinical Signs

- Fever
- Lethargy
- Poor appetite
- Severe lameness
- Swelling along chest or ventral abdomen



# Clinical Signs – Other Species

- Sheep and Goats – Caseous Lymphadenitis (CLA) – external and internal abscesses
- Cattle – Cutaneous granulomas (large draining abscesses along face, neck, thorax, and flanks)
  - Mastitis
  - Internal and mixed infections
- Reports in camelids and buffalo
- Humans – lymphadenitis and pneumonia

# Human Infection

- Infection may result from consumption of unpasteurized infected milk or milk products, close contact with infected animals, handling contaminated equipment, or exposure of wounds with infected material
- Infection from small ruminant strains has been reported
- NO reports of transmission from horses to humans – but take precautions!

# Pigeon Fever in Horses

- No breed or sex predilection
- Young horses may be predisposed (52% of horses in one large study were under 5 yo)
- Abscesses may occur in the pectorals, prepuce, mammary gland, axilla, limbs, inguinal region, and head – among others



# Recovery in Horses

- 90% of horses will completely recover with no reoccurrence of infection
- 8-9% of infections may persist for a year or reoccur
- Case fatality for horses with external abscesses is <1%
- Case fatality for horses with internal abscesses reported to be 40%

# Diagnosis

- CULTURE of organism from abscess or draining wound is definitive
- Blood test – SHI Test
  - Synergistic hemolysis inhibition test
  - Depends on chronicity and severity of infection



# Blood test - SHI Test

- Antibody titer of 1:128 indicates exposure
- Titer of 1:512 indicates infection
- A negative titer DOES NOT rule out the disease... in one study only 40% of horses confirmed by culture had a titer >1:256
- Early in disease titers may not be positive
- In one study, all horses with INTERNAL abscesses had titers >1:512

# Treatment

- Allow abscesses to mature
- Establish drainage and collect and dispose of infected material
- Lavage with antiseptic
- Control flies around wounds
- Pain medication if abscesses deep, severe



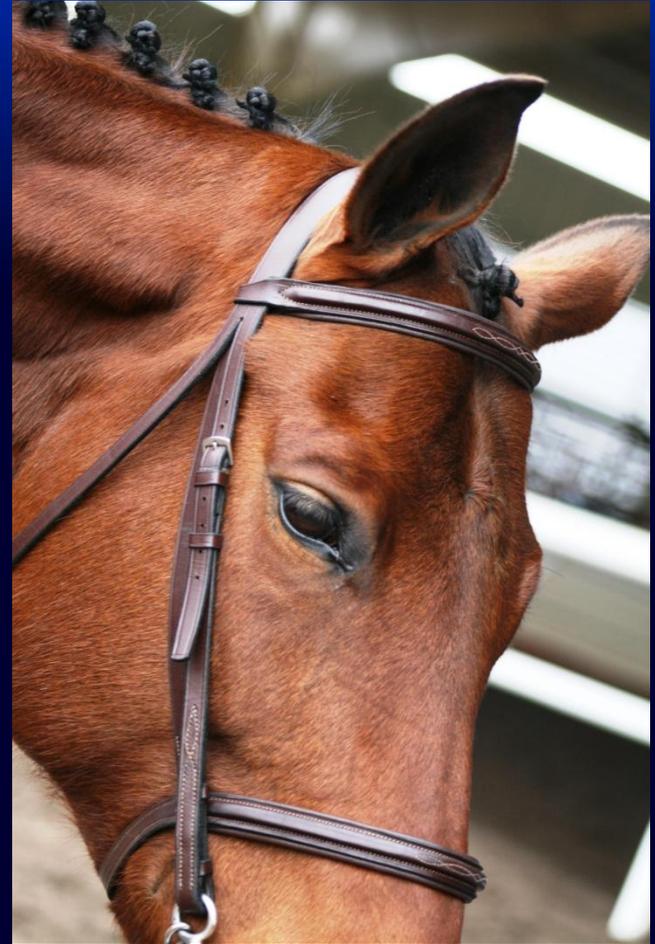
# Treatment

- Systemic antibiotics?
  - Consult with DVM
  - May prolong course for external abscesses
  - Appropriate in severe cases or with reoccurrence
  - **NECESSARY** long term if internal abscesses
  - Susceptible to most antibiotics
    - penicillin, TMS, Chloramphenicol, etc.



# Prevention

- No vaccine available for horses
- Isolate infected animals
- Careful handling and disposal of purulent material
- FLY and VECTOR CONTROL!



# Prevention

- Reduce environmental contamination
  - Treat in areas with concrete or rubber flooring that can be disinfected
  - Lance abscesses into waste container
  - Stall individuals with draining wounds
- Wear Gloves
- Fly sprays and feed through fly control may be beneficial

THANK YOU! ANY QUESTIONS?

